|          |                      |               |          |           | ex         | ~6             |           | <br>     |             | _            |           |   |                 |                 |                | A            | Application No. |           |              |                |           |          |  |            |                     | Applicant(s) |                 |          |           |          |          |          |          |  |
|----------|----------------------|---------------|----------|-----------|------------|----------------|-----------|----------|-------------|--------------|-----------|---|-----------------|-----------------|----------------|--------------|-----------------|-----------|--------------|----------------|-----------|----------|--|------------|---------------------|--------------|-----------------|----------|-----------|----------|----------|----------|----------|--|
|          |                      | 1/11          | //<br>   | ria:      | ez<br>Beim | (11)<br>  (11) | C/<br>RMM | idi.     | i i i i i i | ><br>8 (201) | 111       |   |                 |                 |                | ۱,           | 10/673,229      |           |              |                |           |          |  |            |                     |              | TOKOYODA ET AL. |          |           |          |          |          |          |  |
|          |                      | Ш             |          |           | Ш          | Ш              |           |          |             |              |           |   |                 |                 |                |              | Examiner        |           |              |                |           |          |  |            |                     |              |                 | <u> </u> |           |          |          |          |          |  |
|          |                      |               |          |           |            |                |           |          |             |              |           |   |                 |                 |                |              |                 |           |              |                |           |          |  |            | Art Unit            |              |                 |          |           |          |          |          |          |  |
|          | Fav                  |               |          |           |            |                |           |          |             |              |           |   |                 |                 | Fayez G. Assaf |              |                 |           |              |                |           |          |  | 2872       |                     |              |                 |          |           |          |          |          |          |  |
|          |                      |               |          | _         |            |                | _         |          | _           | _            |           |   |                 |                 |                |              |                 |           | _            | _              |           |          |  | ٦          |                     |              |                 |          |           |          | _        |          |          |  |
|          |                      |               | 1        | R         | ejec       | ted            | ıl        |          | <u> </u> _  |              | (Thr      |   |                 |                 |                | ai)          |                 | ١         | Non-Elec     |                |           | cted     | 1  |            | Appeal              |              |                 |          |           | 1        |          |          |          |  |
|          | <del>         </del> |               |          |           |            |                |           |          |             |              | Cancelled |   |                 |                 |                |              | N NON-EI        |           |              |                |           |          | Δ  |            |                     |              |                 |          | ⇃         |          |          |          |          |  |
|          |                      |               | =        | A         | woll       | red            |           |          | +           | + Restricte  |           |   |                 |                 | d              |              |                 |           |              | In             | ter       | fere     | псе  |            | 0                   | Objected     |                 |          |           |          |          |          |          |  |
|          |                      |               | Ш        | L_        |            |                |           |          |             | L.           |           |   |                 |                 |                |              | l               |           |              |                |           |          | J  | Ш          | <u> </u>            |              |                 | J        |           | •        |          |          |          |  |
| i        | Ci                   | aim           | Т        |           |            | Da             | ite       |          |             | $\neg$       | Claim     |   |                 | _               | Date           |              |                 |           |              | $\neg$         |           | Claim    |  |            | Date                |              |                 |          |           |          | 1        |          |          |  |
|          |                      | $\overline{}$ | 12       |           |            |                | T         | Ι        | Γ           | П            |           | 1   | T 1 T           |                 |                | TTT          |                 | T         | 1            |                |           | 7        |  | 7          | П                   |              |                 |          | Τ         | Τ        | Τ        |          |          |  |
|          | Final                | Ιĝ.           | 1/2/4    | <b>:</b>  |            |                |           |          |             |              |           | 5   | Original        |                 |                | H            |                 | ı         |              | ı              |           |          | Final  | Original   |                     | Ì            |                 | 1        |           |          | L        |          |          |  |
|          | ш.                   | ō.            | \$4      | 1         | ı          |                |           |          |             |              | '   '     | ۱ ۱   | ō               |                 |                |              |                 | -         | ١            |                | -         | 1        | 1  | ō          | ll                  | - 1          |                 | 1        |           |          |          |          |          |  |
|          |                      | (1)           |          |           | 士          | 1              | $\perp$   | 丰        |             | 口            |           | コ   | 51              |                 |                |              |                 | コ         |              | 1              | 1         | ゴ        |  | 101        |                     | 士            | 士               | 1        | 1         | t        | t        | L        | j        |  |
|          |                      | 3             | 0        | Н         | +          | 4-             | ╄         | ╀        | ┼           | Н            | ⊢         | $\dashv$  | 52<br>53        | Н               |                | Н            |                 | $\dashv$  | $\dashv$     | +              | 4         | 4        | <b> </b> -                                       | 102        | Н                   | $\dashv$     | 4               | 4        | $\perp$   | Ļ        | $\perp$  | Ļ        | <b>]</b> |  |
|          |                      | 4             | 6        | $\dashv$  | 十          | 十              | 十         | 十        | +           | Н            | F         | +   | <del>53</del>   | Н               |                | Н            | $\dashv$        | ┪         | ┪            | +              | 十         | ┪        | $\vdash$   | 104        | Н                   | ┪            | 十               | +        | ╁         | +        | ╁        | ╁        |          |  |
|          |                      | 5             | 0        |           |            | Ţ              | T         | Τ        | Г           |              |           | $\Box$  | 55              |                 |                |              |                 | コ         | $\exists$    | $\Box$         | T         | コ        |  | 105        | 口                   | 1            | #               | #        | 工         | 土        | İ        |          | j        |  |
|          |                      | 7             | 9        | -         | +          | ╀              | ╀         | ╁        | ╀           | Н            | $\vdash$  | $\dashv$  | <u>56</u><br>57 | Н               |                | $\dashv$     | 4               | 4         | +            | ┽              | ╬         | $\dashv$ | $\vdash$   | 106<br>107 | $\vdash$            | 4            | +               | +        | ╀         | ╀-       | ╀        | ╀        |          |  |
|          |                      | 8             | V        |           | 1          | $\perp$        | İ         | L        | 上           | Ħ            |           | _   | 58              |                 |                |              |                 | +         | $\exists$    |                | $\dagger$ | 1        | $\vdash$   | 108        | H                   | +            | +               | +        | ╁         | 十        | H        | H        |          |  |
|          |                      | 9             | 4        | $\Box$    | 1          | Ţ              | I         | L        | L           | П            |           |   | 59              |                 |                |              | $\Box$          | $\Box$    | I            | $\blacksquare$ | 1         | 7        |  | 109        |                     | $\Box$       | $\blacksquare$  | I        | 1         |          |          | L        |          |  |
|          |                      | 10<br>11      | <u>0</u> | $\dashv$  | ╫          | ╫              | ╫         | ╁╴       | ┢           | Н            | $\vdash$  |   | 60<br>61        | $\vdash$        | -              | $\dashv$     | ᅱ               | +         | +            | +              | +         | $\dashv$ | $\vdash$   | 110<br>111 | $\vdash\vdash$      | +            | +               | ╀        | ╀         | ╀        | ╀        | ╀        |          |  |
|          |                      | 12            | $\delta$ | コ         | 士          | 土              | 土         | T        |             | ㅂ            |           |   | 62              |                 |                |              | $\exists$       | $\pm$     | $\perp$      | Ī              | $\pm$     | _        |  | 112        |                     | ┪            | $\top$          | +        | ╅         | †        | ╁        | H        |          |  |
|          |                      | 13<br>14      | 의        | $\dashv$  | 4          | $\perp$        | $\bot$    | ╄        | ┡           | Н            | <u> </u>  |   | 63<br>64        |                 | 4              | 4            | _               | 4         | _            | 4              | 4         | 4        |  | 113        | П                   | ightarrow    | Ţ               | Ţ        | T         | T        |          |          |          |  |
|          |                      | 15            |          | ┽         | +          | +              | ┿         | ╁        | $\vdash$    | Н            | $\vdash$  |   | 65              | $\vdash$        | $\dashv$       | -            | $\dashv$        | +         | $\dashv$     | +              | +         | ┨        |  | 114        | $\vdash$            | +            | ╬               | ╁        | ╫         | ╀        | ╀        | ┝        |          |  |
|          |                      | 46            | 回        |           | 丄          | 1              |           |          |             | П            |           | T   | 66              |                 |                | $\exists$    | $\exists$       | $\Box$    | コ            |                | 1         | 1        |  | 116        |                     | 1            | 土               | 土        | İ         | T        |          |          |          |  |
|          |                      | 14            |          | +         | +          | +-             | ╁         | ╀        | H           | Н            | -         |   | 67<br>68        | $\vdash \vdash$ | -              | $\dashv$     | $\dashv$        | +         | +            | +              | +         | 4        | <u> </u>   | 117        | $\vdash \downarrow$ | 4            | +               | ╀        | ╀         | ╀        | -        | <u> </u> |          |  |
|          |                      |               |          | 7         | +          | t              | ╁         | ┢        | H           | H            | <b> </b>  |   | 69              | H               | ┪              | $\dashv$     | ┪               | $\dagger$ | +            | +              | $\dagger$ | $\dashv$ | H  | 119        | $\vdash$            | ╁            | +               | ╁        | ╁         | ╁        | ╀        | ┢        |          |  |
| لد       |                      | 20            |          | $\Box$    | $\Box$     | Ţ              | L         | L        |             | $\Box$       |           | I   | 70              |                 |                | $\Box$       | $\Box$          | $\Box$    | 1            | ightharpoons   | 1         | ]        |  | 120        |                     | ユ            | #               | 1        | Ė         |          |          |          |          |  |
|          |                      | 21<br>22      | H        | $\dashv$  | +          | ╀              | ╀         | ╀        | ⊢           | Н            | $\vdash$  |   | 71<br>72        | $\dashv$        | $\dashv$       | -            | $\dashv$        | +         | +            | +              | +         | ┨        | H  | 121<br>122 | $\dashv$            | +            | +               | ╀        | ╀         | ╀        | H        | _        |          |  |
| Į.       |                      | 23            |          | 士         | 土          | 1              | L         |          |             | ਖ            |           | $oldsymbol{ol}}}}}}}}}}}}}}}$ | 73              |                 |                | 士            | $\exists$       | 士         | 1            | 士              | 土         | 1        |  | 123        |                     | $\pm$        | 1               | $\pm$    | T         |          |          | H        |          |  |
|          |                      | 24            | Н        | 4         | $\bot$     | ╀              | ╄         | ┞        | _           | Ц            |           |   | 74              | $\Box$          | 4              | 4            | 4               | 4         | $\downarrow$ | $\bot$         | ľ         | 7        |  | 124        | $\Box$              | 1            | 1               | I        | Ţ         | L        | Г        |          |          |  |
| 1        |                      | 25<br>26      | $\vdash$ | $\dashv$  | +          | ╁              | +         | ┢        | $\vdash$    | $\dashv$     | -         |   | 75<br>76        | $\dashv$        | -              | $\dashv$     | $\dashv$        | +         | +            | +              | ╁         | ┨゛       | $\vdash$   | 125<br>126 | -+                  | +            | +               | ╁        | ╫         | ╀        | ├        | Н        |          |  |
| [        |                      | 27            |          | $\exists$ | 1          | I              | L         |          |             |              |           | $\Box$  | 77              |                 |                | ##           |                 | 士         |              | 土              | 土         |          |  | 127        |                     | 1            | 土               | İ        | 土         |          |          |          |          |  |
| ŀ        | -                    | 28<br>29      | Н        | +         | +          | ╀              | ╀         | ┢        | L           | $\dashv$     | -         |   | 78<br>79        | $\dashv$        | $\dashv$       | $\dashv$     | $\dashv$        | +         | 4            | -              | +         | 4        |  | 128        | $\dashv$            | 1            | 4               | 1        | $\perp$   | L        | L        |          |          |  |
| ì        |                      | 30            | H        | 十         | ╅          | ╁              | ╁         | H        | Н           | $\dashv$     | H         |   | 80              | $\dashv$        | ┪              | +            | +               | +         | +            | ╁              | ╁         | ┨        |  | 129<br>130 | -+                  | ╁            | +               | ╫        | ╁         | ┝        | ┝        | Н        |          |  |
| 1        |                      | 31            |          | $\bot$    | $\bot$     | Į              | L         |          |             |              |           |   | 81              |                 | 4              | 1            | 1               | 7         | #            | 1              | 1         | ] .      |  | 131        | $\exists$           | 丰            | 土               | 工        | 上         |          |          |          |          |  |
| ŀ        | $\dashv$             | 32<br>33      | $\vdash$ | +         | +          | +-             | ╀╌        | ╀        | H           | $\dashv$     | -         | _   | 82<br>83        | +               | +              | +            | +               | +         | +            | +              | +         | ┨╵       | <u> </u>   | 132<br>133 | +                   | 4            | +               | +        | ╂-        | L        | ┡        | Н        |          |  |
| f        |                      | 34            |          | $\dagger$ | +          | 十              | ╁         | H        | Н           | ٦.           | $\vdash$  |   | B4              | +               | $\dashv$       | 十            | ╅               | 十         | +            | +              | $\dagger$ | 1        |  | 134        | ╅                   | +            | +               | +        | ╫         | ┢        | ┝        | Н        |          |  |
|          |                      | 35            | П        | T         | $\perp$    | I              | L         |          |             |              |           |   | 85              | $\Box$          | $\Box$         | $\Box$       | 7               | Ţ         | T            | ightharpoons   | Ţ         | 1        |  | 135        | $\Box$              | 1            | 工               | I        |           |          |          |          |          |  |
|          | $\dashv$             | 36<br>37      | -        | +         | +          | ╀              | ╁         | $\vdash$ | Н           | ۲.           | $\vdash$  |   | 86<br>87        | $\dashv$        | ┥              | $\dashv$     | +               | +         | +            | ╁              | ╀         | ┨╴       | ├  | 136<br>137 |                     | +            | ┿               | ╀        | ╀         | ╀        | -        | Н        |          |  |
| t        |                      | 38            |          | 1         | 1          | 1              | T         |          |             | _            |           |   | 88              |                 |                |              | 1               | ╁         | +            | $\top$         | +         | ┪        | <del>                                     </del> | 138        | ╅                   | $\dagger$    | ╈               | +        | +         | ┢        | Н        | Н        |          |  |
|          |                      | 39            | $\Box$   | 4         | $\bot$     | L              |           |          |             | $\Box$       |           |   | 89              | $\dashv$        | $\exists$      | $\Box$       | $\Box$          | Ţ         | 4            | _              | Ţ         | ]        |  | 139        | $\dashv$            | 1            | T               | I        | $\top$    |          |          |          |          |  |
| -        | $\dashv$             | 40<br>41      | $\dashv$ | +         | ╫          | ╁              | ╁         | Н        | Н           | $\dashv$     | $\vdash$  |   | 90<br>91        | $\dashv$        | +              | +            | +               | ╁         | +            | ┿              | ╁         | ┨│       | $\vdash$   | 140        | +                   | +            | ╬               | ╀        | ╁┈        | $\vdash$ | Н        | Н        |          |  |
| į        | $\Box$               | 42            |          | 士         | 土          |                | 匚         |          |             | コ            |           |   | 92              | 士               | コ              | 土            | 士               | 1         | 1            | 土              | İ         | ]        |  | 142        | 士                   | 土            | 士               | İ        | 上         |          |          |          |          |  |
| -        |                      | 43<br>44      | $\bot$   | +         | 1          | $\vdash$       | -         | Н        | $\Box$      | 4            | 1         |   | 93<br>94        | 4               | $\dashv$       | 4            | 4               | Ŧ         | Ŧ            | $\bot$         | Ŧ         | -] :     |  | 143        | Ţ                   | Ţ            | Ţ.              | F        | F         | $\Box$   | П        | П        |          |  |
| <u> </u> | +                    | 45            | +        | +         | ╁          | ╁              | $\vdash$  | Н        | $\dashv$    | $\dashv$     | $\vdash$  |   | 35              | +               | $\dashv$       | +            | +               | +         | +            | +              | +         | ┨        |  | 144<br>145 | +                   | +            | +               | ╁        | +         | -        | $\vdash$ | Н        |          |  |
| 1        | $\Box$               | 46            | $\dashv$ | 工         | #          | L              |           | 口        |             | $\exists$    |           | $\mathbf{T}$  | 36              | コ               | #              | $\downarrow$ | $\downarrow$    | 1         | 1            | 1              | İ         | <b>]</b> |  | 146        | $\perp$             | 丰            | 1               | I        |           |          |          |          |          |  |
|          | -+                   | 47<br>48      | +        | +         | +          | ╀              | $\vdash$  | Н        | $\dashv$    | $\dashv$     | $\vdash$  |   | 97<br>98        | +               | +              | +            | +               | +         | +            | +              | +         | <b>-</b> |  | 147        | +                   | +            | ╀               | +-       | ╀         | Н        | Н        | Ц        |          |  |
| F        |                      | 49            | 士        | _         | _          | Ħ              | $\vdash$  | H        | ╛           | <b>d</b>     |           | 1   | 9               | 士               | +              | +            | +               | +         | +            | +              | 士         | <u> </u> |  | 149        | +                   | +            | ╁               | +        | $\dagger$ | H        | H        | $\dashv$ |          |  |
|          |                      | 50            | T        | Т         | T          | Г              |           |          |             |              |           |   | 00              |                 | T              | $\top$       | $\top$          | $\top$    | ┰            | Т              | Τ         | 7 1      |  | 150        | +                   | ┰            | Т               | Τ        |           | П        | П        | ┪        |          |  |